

# LIEBHERR

## CONSTRUCTION EQUIPMENT



### [BEN-MET STEEL] LIEBHERR LH60C102201-1528 - Diesel Engine

Sample No: LH0274860  
 Oil Type: DIESEL ENGINE OIL SAE 15W40



**LIEBHERR CANADA LTD.**  
 1015 SUTTON DRIVE  
 BURLINGTON, ON  
 CA L7L 5Z8  
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#### SAMPLE INFORMATION

Sample Number	LH0274860	LH0256991	---	---
Sample Date	27 Feb 2024	10 Aug 2023	---	---
Machine Hours	12877	12158	---	---
Oil Hours	0	0	---	---
Oil Changed	Changed	N/A	---	---
Sample Status	ABNORMAL	ABNORMAL	---	---



#### OIL CONDITION

Visc @ 100°C	cSt	12.3	16.4	---	---
Oxidation (PA)	%	114	150	---	---



#### CONTAMINATION

Water	%	NEG	NEG	---	---
Soot %	%	0	0	---	---
Nitration (PA)	%	119	149	---	---
Sulfation (PA)	%	72	83	---	---
Glycol	%	0.0	NEG	---	---
Fuel	%	1.8	<1.0	---	---
Silicon	ppm	9	5	---	---
Sodium	ppm	9	6	---	---
Potassium	ppm	22	2	---	---



#### WEAR METALS

Iron	ppm	17	14	---	---
Copper	ppm	103	2	---	---
Lead	ppm	14	2	---	---
Tin	ppm	8	<1	---	---
Aluminum	ppm	2	3	---	---
Chromium	ppm	<1	<1	---	---
Molybdenum	ppm	48	65	---	---
Nickel	ppm	<1	0	---	---
Titanium	ppm	0	0	---	---
Silver	ppm	<1	<1	---	---
Manganese	ppm	1	<1	---	---
Vanadium	ppm	0	0	---	---



#### ADDITIVES

Calcium	ppm	1305	1647	---	---
Magnesium	ppm	924	691	---	---
Zinc	ppm	1153	1209	---	---
Phosphorus	ppm	943	1055	---	---
Barium	ppm	39	0	---	---
Boron	ppm	13	31	---	---

#### Diagnosis

We advise that you check for faulty combustion and a possible overheat condition. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. No other corrective action is recommended at this time. Tin ppm levels are abnormal. Slide bearing wear is indicated. Light fuel dilution occurring. No other contaminants were detected in the oil. A small degree of oil oxidation was indicated. The oil is no longer serviceable as a result of the abnormal and/or severe wear.

Depot: LIEMIS  
 Unique No: 5735738  
 Signed: Kevin Marson  
 Report Date: 01 Mar 2024



### GRAPHS

